## 50319/KMO/R268

We claim:

1. A composition comprising a compound of formula (I):

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$$\begin{array}{c|c} R_1 & & \\ R_2 - N & \\ R_3 & & \end{array}$$

wherein:

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and

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wherein

R<sub>4</sub> is a radical selected from the group consisting of alkyl, substituted alkyl, aryl and substituted aryl;

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 $R_5$  is a radical selected from the group consisting of -NH $_2$ , -OH, -SH, -NH-alkyl, -NHR $_4$ , -NH-alkylenyl-R $_4$ , -O-alkyl, -O-alkylenyl-R $_4$ , -S-alkyl, and -S-alkylenyl-R $_4$ ;

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 $R_6$  is a radical selected from the group consisting of -CN, -COOH, -C(O)O-alkyl, -C(O)O-alkylenyl- $R_4$ , -C(O)-alkyl, -C(O)-alkylenyl- $R_4$ , -C(O)-halogen, -C(O)NH<sub>2</sub>, -C(O)NH-alkyl, -C(O)NH-alkylenyl- $R_4$ ;

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 $R_7$  is a radical selected from the group consisting of O, NH, and S; and  $R_8$  is N, O or S; and

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 $R_2$  is selected from the group consisting of alkyl and alkylenyl- $R_{10}$  and  $R_3$  is alkylenyl- $R_{10}$ , wherein  $R_{10}$  is selected from the group consisting of -OH, -OTs, halogen, spiperone, spiperone ketal, and spiperone-3-yl,

or  $R_2$  and  $R_3$  together form a heterocyclic ring, optionally substituted with at least one radical selected from the group consisting of alkyl, alkoxy, OH, OTs, halogen, alkyl- $R_{10}$ , carbonyl, spiperone, spiperone ketal and spiperone-3-yl, and further wherein one or more of the hydrogen, halogen or carbon atoms are optionally replaced with a radiolabel.

- 2. A composition according to claim 1, wherein the compound of formula (I) is radiolabeled with <sup>18</sup>F or <sup>123</sup>I.
  - 3. A composition according to claim 1, comprising a compound of formula (II):

$$\begin{array}{c|c}
& \text{NC} & \text{CN} \\
& R_9 & \\
& R_2 - N \\
& R_3 & \\
\end{array} \tag{II)}$$

wherein

 $R_2$  is selected from the group consisting of alkyl and alkylenyl- $R_{10}$  and  $R_{10}$  is alkylenyl- $R_{10}$ , wherein  $R_{10}$  is selected from the group consisting of -OH, -OTs, halogen, spiperone, spiperone ketal and spiperone-3-yl,

or  $R_2$  and  $R_3$  together form a heterocyclic ring, optionally substituted with at least one radical selected from the group consisting of alkyl, alkoxy, OH, OTs, halogen, alkylenyl- $R_{10}$ , carbonyl, spiperone, spiperone ketal and spiperone-3-yl,

and R<sub>9</sub> is an alkyl group;

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or a pharmaceutically acceptable salt or solvate thereof; and further wherein one or more of the hydrogen, halogen or carbon atoms are optionally replaced with a radiolabel.

- 5 4. A composition according to claim 3, wherein the compound of formula (II) is radiolabeled with <sup>18</sup>F or <sup>123</sup>I.
  - 5. A composition according to claim 1, wherein the compound of formula (I) is 2-(1,1-dicyanopropen-2-yl)-6-(2-[18F]-fluoroethyl)-methylamino)-naphthalene.

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